



April 15, 2002

Utah Coal Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Attn: Daron Haddock

Subject: **Response to the Deficiencies of the Mill Fork Lease Application, PacifiCorp, Deer Creek Mine, Volume 12, C015/018, Emery County, Utah**

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, hereby submits responses to the deficiencies of the Deer Creek Mine Mill Fork Lease Application. This application was originally submitted (Mill Fork Lease Volume 12) in October, 2001. On December 21, 2001, the Division determined the application to be administratively complete and commenced their technical review of the supplied information.

For four consecutive weeks in January, 2002, PacifiCorp published the required public notice to increase the size of the Deer Creek Mine permit area. As you know, only one comment was received by Emery County water users requesting an informal conference to discuss water related issues within the lease tract. On March 6, 2002, PacifiCorp met with the Division and the concerned Emery County water users. Hopefully, their concerns were addressed adequately.

On February 7, 2002, PacifiCorp received the technical review for the Mill Fork Lease mining application. The Division found deficiencies that needed to be addressed prior to approval. The Division required PacifiCorp to respond to the deficiencies by March 15, 2002. On March 7, 2002, PacifiCorp received USFS comments concerning the mining lease application. Their comments were dated February 25, 2002. PacifiCorp requested a 30 day extension to adequately respond to both the concerns of the Division, as well as, the Forest Service.

Accompanied with this letter are seven (7) redline/strikeout copies of the Mill Fork Lease Application for your Round Two Review process. Also enclosed are the proper C1/C2 Forms. When approved, seven (7) clean copies of the Mill Fork Lease Volume 12 will be submitted to the Division.

Huntington Office:
(435) 687-9821
Fax (435) 687-2695
Purchasing Fax (435) 687-9092

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

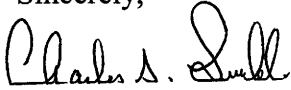
Trail Mountain Mine:
(435) 748-2140
Fax (435) 748-5125

Incoring
4/15/02
Copy Dir - Daron
Letter

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APR 16 2002

If you have any questions or concerns regarding this document, please contact myself at (435) 687-4720 or Dennis Oakley at (435) 687-4825.

Sincerely,



Charles A. Semborski

Permitting/Geology Supervisor

Enclosure: Response to Technical Analysis Deficiencies

C1/C2 Forms

Redline/Strikeout copies of the following:

- Introduction Section , Figure 1
- R645-301-100: General Information, including appendices B, C, D, E and 2 drawings
- Map MFS1834D for R645-301-200: Soils
- R645-301-300: Biology Section, including 5 drawings
- R645-301-400: Land Use and Air Quality Section, including 3 drawings
- R645-301-500: Engineering Section, including 4 drawings
- R645-301-600: Geology Section, including Appendix C and 7 drawings
- R645-301-700: Hydrology Section, including 2 figures, 3 tables, Appendix A, 4 drawings, and replacement information for Volume 12, Appendix C (separate binder)

Cc: Carl Pollastro (EWMC, w/o encl.)
Scott Child (IMC, w/o encl.)
File

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MAY 17 2011
DIVISION OF
GEOL. & LAND SURVEYING

APPLICATION FOR PERMIT PROCESSING

Permit Change <input checked="" type="checkbox"/>	New Permit <input type="checkbox"/>	Renewal <input type="checkbox"/>	Transfer <input type="checkbox"/>	Exploration <input type="checkbox"/>	Bond Release <input type="checkbox"/>	Permit Number: C/015/018
Title of Proposal: Response to the Deficiencies of the Mill Fork Lease Application, PacifiCorp, Deer Creek Mine, Volume 12, C/015/018, Emery County, Utah						Mine: Deer Creek Mine
						Permittee: PacifiCorp

Description, include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first 8 questions (gray), this may be a Significant Revision and require Public Notice. Any questions, please call a Permit Supervisor.

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1. Change in the size of the Permit Area? <u>5562.82</u> acres Disturbed Area? _____ acres <input checked="" type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Is the application submitted as a result of a Division Order? DO # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	4. Does application include operations in hydrologic basins other than as currently approved?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Is the application submitted as a result of a Violation? NOV # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	10. Is the application submitted as a result of other laws or regulations or policies? Explain: _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	21. Have reclamation costs for bonding been provided for?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

☒ Attach 7 complete copies of the application.

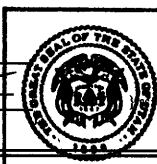
I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Charles A. Semborski Geology/Permitting Supervisor
Signed - Name - Position - Date 4/15/2002

Subscribed and sworn to before me this 15th day of April, 20 02.

My Commission Expires:
Attest: STATE OF
COUNTY OF Utah

Notary Public



LORI ANN ANDERSON
NOTARY PUBLIC - STATE OF UTAH
31 NORTH MAIN
HUNTINGTON, UT 84528
COMM. EXP. 12-22-2005

Received by Oil, Gas & Mining

ASSIGNED TRACKING NUMBER

Application for Permit Processing

Detailed Schedule of Changes to the MRP

Title of Application: Response to the Deficiencies of the Mill Fork Lease Application,
PacifiCorp, Deer Creek Mine, Volume 12, C/015/018, Emery County, Utah

Permit Number: C/015/018

Mine: DEER CREEK

Permittee: PACIFICORP

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, Introduction Section, Replace Figure 1
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-100: General Information, Replace Entire Text Section
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-100: General Information, Appendix B, Replace NOV Information
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-100: General Information, Appendix C, Replace Liability Insurance Information
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-100: General Information, Appendix D, Replace Proof of Publication Information
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-100: General Information, Appendix E, Replace Permit Boundary Description Information
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-100: General Information, Replace Map MFU1837D
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-100: General Information, Replace Map MFS1838D
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-200: Soils, Replace Map MFS1834B
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12 R645-301-300: Biology, Replace Entire Text Section
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12 R645-301-300: Biology, Replace Map MFS1821D
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12 R645-301-300: Biology, Replace Map MFS1849B
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12 R645-301-300: Biology, Replace Map MFS1822B
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12 R645-301-300: Biology, Replace Map MFS1852B
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-400: Land Use and Air Quality, Replace Entire Text Section
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-400: Land Use and Air Quality, Replace Map MFS1835B
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-400: Land Use and Air Quality, Replace Map MFS1836B
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-400: Land Use and Air Quality, Insert Map MFS1856B
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-500: Engineering, Replace Entire Text Section
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-500: Engineering, Replace Map MFU1841D
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-500: Engineering, Replace Map MFU1840D
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-500: Engineering, Replace Map MFS1839D
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Volume 12, R645-301-500: Engineering, Insert Map MFS1857D

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

Application for Permit Processing

Detailed Schedule of Changes to the MRP

Title of Application: Response to the Deficiencies of the Mill Fork Lease Application,

Permit Number: C/015/018

PacifiCorp, Deer Creek Mine, Volume 12, C/015/018, Emery County, Utah

Mine: DEER CREEK

Permittee: PACIFICORP

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

	DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Replace Entire Section
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Appendix C, Replace Overburden Chemical Analysis Information
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Replace Map MFU1823D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Replace Map MFU1829D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Replace Map MFS1824D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Replace Map MFU1827D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Replace Map MFU1826D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Replace Map MFS1825D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-600: Geology, Replace Map MFU1828D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Replace Entire Text Section
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Figures Tab, Replace Figure MFHF-1
<input checked="" type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Figures Tab, Insert Figure MFHF-6
<input checked="" type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Tables Tab, Insert Table MFHT-3
<input checked="" type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Tables Tab, Insert Table MFHT-4
<input checked="" type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Tables Tab, Insert Table MFHT-5
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Appendix A, Replace Hydrologic Monitoring Program Information
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Replace Map MFS1830D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Replace Map MFS1831D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Replace Map MFS1832D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, R645-301-700: Hydrology, Replace Map MFS1851D
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, Appendix C (Separate Binder), Replace Field Data for 2000 & 2001
<input type="checkbox"/> ADD <input checked="" type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Volume 12, Appendix C (Separate Binder), Replace Water Quality Data for 2000 & 2001
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

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DIVISION OF MINING
JAN 14 2002

Response to Technical Analysis Deficiencies

The following responses to deficiencies are formatted as found in the technical analysis document. They are broken down into logical section headings similar to the R645 regulations. In each section, the regulation number along with the associated deficiency is followed by the permittee's italicized response.

GENERAL CONTENTS

Identification of Interests

R645-301-112.600, The addresses of IPA, Craig Johansen, Kirk & Julie Johansen, and Etal Jensen need to be included on page 1-20. Map MFS1838D, subsurface coal ownership, shows a fee parcel under lands owned by Dick and Quinevere Nielson. The owner of the fee coal must be provided.

The addresses of IPA, Kirk, Julie Johansen, and Stanley and James Jensen are listed as found at the Emery County Records office. Land owner Craig Johansen was inadvertently left out and is now included. Land owner Oral Eugene Johansen has been removed since this land is not contiguous to the proposed or existing Deer Creek permit boundary.

Land owners PacifiCorp, Nevada Electric Investment Co., C.O.P. Coal Development Corp., SITLA, LDS Church, and the Malcolm McKinnon Estate are additional owners of land that surround the Deer Creek permit area. The reference location of these properties has been noted on page 1-19 through 1-20.

A descriptor, surface or subsurface, has been placed below each land and/or mineral owner to the portion owned. Other changes to R645-301-100 have been redlined/struckout. These changes mimic the changes made in the IBC submittal dated February 28, 2002.

R645-301-112.900, After this permit modification is approved but prior to reissuing the permit, the Applicant must update, correct or indicate that no change has occurred in the information previously submitted under R645-301-112.100 through R645-301-112.800.

PacifiCorp, after this application is approved, commits to updating, or correcting information previously submitted under R645-301-112.100 through R645-301-112.800 if necessary.

Violation Information

R645-301-113.300, Violation Information is dated December 2000. This appendix must be updated with a list of all violation notices received by the Applicant during the three year period preceding the application date.

The above stated information has been updated for the previous 3 years.

Right of Entry Information

R645-301-121.100, Please correct the acreage to correspond to the acreage decided in E-mail between Chuck Semborski and Pamela Grubaugh-Littig, dated January 15, 2002.

This information has been corrected in the February 28, 2002 IBC submittal and is also shown as being corrected in this current submittal.

Draft Public Notice

R645-301-117.200, The draft public notice must be replaced with a copy of the actual publication showing four consecutive weeks of publication.

The public notice was published in the Emery County Progress on January 1, 8, 15, and 22, 2002. The published notice has been included with this submittal.

Permit Application Format and Contents

R645-301-121, All ground-water and surface-water baseline data needs to be included as part of the Mill Fork Lease PAP before the permit can be approved.

Refer to R654-301-724.100, -121 response.

R645-301-121, The Table of Contents in the Engineering section must provide a list of maps.

Engineering Section R645-301-500 has been revised to include references to maps.

Completeness

ENVIRONMENTAL RESOURCE INFORMATION

Fish and Wildlife Resource Information

R645-301-131, All technical data must be accompanied by the dates of the data collection. Provide the dates of data collection and analysis for the bat studies.

The permit application indicates that Sherwin, et. al. were contracted by Energy West Mining Company and Genwal Resources in 1997. Their assessment reports are attached in Appendix A for the Cottonwood Lease Area, the North Rilda Lease Area, and the Southern Lease Area. Nowhere in the three assessment reports is there any indication of when the reports were published. Energy West can only report the year in which Sherwin, et. al. were contracted. No changes will be made to this portion of the application.

R645-301-132, Analyses will be under the direction of a professional qualified person in threatened and endangered species. The name and qualifications of this qualified person must be provided in the MRP.

Information concerning threatened and endangered plant and animal species in section R645-301-322.210 has been revised to better address the concerns of the Division. Personal communications have been made with the Forest Service and the Division of Wildlife Resources. These communications have been referenced in specific locations of the application. Additionally, published documents have been referenced (i.e. Mill Fork Federal Coal Lease Tract UTU-71307, Environmental Assessment, Lease-By-Application No. 11) within the application that qualifies the stated information.

R645-301-322, the MRP must discuss the potential for Link Canyon columbine, heliotrope milkvetch, Maguire campion, Carrington daisy, and canyon sweetvetch occurrence in the proposed permit area.

Mr. Bob Thompson (USFS Botanist) indicated during a personal interview in February, 2002, that no threatened, endangered or sensitive plant species have been found to occur within the Mill Fork Lease area. He believes that the four high interest species do not occur within the lease, however, no surveys have been conducted to verify their existence or absence. It was also Mr. Thompson's opinion that impacts to vegetation due to mining induced subsidence will be negligible to vegetation within the Mill Fork Lease. Refer to the R645-301-300: Biology for amended text sections.

R645-301-322, the MRP must discuss the potential for the presence or absence of the Mexican spotted owl.

Mr. Rod Player (USFS wildlife specialist) indicated during a personal interview in February, 2002, that no Mexican Spotted Owls have been found to occur within the Mill Fork Lease Area. The area has limited potential for habitat for the threatened species. Company representative, Mr. Kerry Larsen attended the Mexican Spotted Owl Training class in Moab, Utah on March 21, 2002. Information gained from the class found that areas west of the San Rafael have been surveyed for two years. No owls were found to exist. Refer to R645-301-300: Biology for amended text sections discussing Spotted Owl potential.

Geologic Resource Information

R645-301-724, The Applicant needs to provide detailed information showing drill hole information, including drill logs and the geologic relationship between drill holes, including faults and groundwater sources.

The Geologic Section, R645-301-600, includes a detailed description of the drill holes completed in the Mill Fork Lease ML-48258. As stated in R645-301-622, a total of seventeen exploration holes and one gas well have been drilled. Geologic base maps including: structure, coal seam isopachs, and geologic cross sections were based upon the exploration drill information. Appendix B is a tabulation of the available information, including hydrologic characteristics. Appendix B includes a column entitled "Proprietary", which indicates public and private information. All of the information listed in Appendix B is available to the Division staff for review at the Energy West Mining's main office in Huntington, including the proprietary information. The proprietary information will remain private until un-leased coal resources adjacent to the Mill Fork are leased.

R645-301-724, The Applicant should submit acid- and toxic-forming information for the Hiawatha Coal Seam and provide detail of any information collected from boreholes on the lease area. Data should be sufficient to identify the potential for acid and toxic contamination. If no borehole information is available for the lease area, a waiver for collecting this information can be requested by the operator if there is evidence that no potential for contamination or degradation of surface and ground-water resources exists.

R645-301-600: Appendix C has been revised to include acid-and toxic forming information for the drill holes completed in the Mill Fork Lease. Samples were taken and analyzed for the strata immediately above and below for each seam potentially to be mined.

Hydrologic Resource Information

R654-301-724.100, -121, Ground-water baseline data in the Mill Fork Lease PAP are not sufficient to establish seasonal quality and quantity of ground water. The Coal Mining Rules are clear that the Mill Fork Lease PAP should be complete and contain the required information and not require a search for information at other sources. Of the sites proposed for operational monitoring, EM-216, RR-5, and MF-19B have had only field parameters measured during the baseline monitoring period, and no site has had water quality determined by lab analyses for more than 2 quarters. Data from 4th quarter 2001 need to be included in the PAP.

Hydrologic Section, R645-301-700 has been revised to include information collected during the 4th quarter of 2001. Data collected clearly demonstrates the seasonal variation in quality (refer to the revised data in Appendix C: Water Quality tab and R645-301-721 A. Existing Groundwater Resources, (4) Seeps Springs). The Mill Fork application is an extension of the Deer Creek Mine and has been included as a separate volume. References cited within the document, including data from Volume 9 Hydrologic Section and the Annual Reports are considered part of the Deer Creek MRP and are readily available to the reviewer. As for remaining references, PacifiCorp has cited the source as customary in professional documents.

R654-301-724.100, -121, Ten springs with water rights (Mill Fork Lease PAP Table MFHT-2) are not being proposed for monitoring, and eight of the springs with water rights have no baseline data. Water rights indicate some person has an interest in the quality and quantity of the water and the potential of impacts to that spring from mining. Clarify why these springs do not have baseline and why they will not be monitored.

The following table list the springs with water rights and monitoring clarification:

<i>SPRING #</i>	<i>WATER RIGHT #</i>	<i>Monitoring Clarification</i>
<i>EM-215</i>	<i>93-1254</i>	<i>Outside of permit area, in excess of ½ mile from project mining.</i>
<i>EM-216</i>	<i>93-3399</i>	<i>Included within monitoring program.</i>
<i>JV-26</i>	<i>93-998</i>	<i>Outside of permit area, in excess of ¼ mile from project mining. Projected impact to Joes Valley remote, monitoring plan includes JV-9 and JV-34 which bracket the Joes Valley alluvium.</i>
<i>JV-36</i>	<i>a23164</i>	<i>Outside of permit area, in excess of ¾ mile from project mining. Located on Bald Ridge, hydrologically and structurally separated from the Mill Fork hydrologic system.</i>
<i>JV-43</i>	<i>93-1572</i>	<i>Outside of permit area, in excess of ¾ mile from project mining. Located on Bald Ridge, hydrologically and structurally separated from the Mill Fork hydrologic system.</i>
<i>MF-10</i>	<i>93-1412</i>	<i>Included within monitoring program.</i>
<i>MF-19B</i>	<i>93-1413</i>	<i>Included within monitoring program.</i>
<i>MF-213</i>	<i>93-259</i>	<i>Included within monitoring program.</i>
<i>MF-219</i>	<i>93-1410</i>	<i>Included within monitoring program.</i>
<i>RR-14A</i>	<i>93-1414</i>	<i>Outside of projected mining, PacifiCorp selected RR-23A, a large spring situated adjacent to the projected mains in the vicinity of RR-14A.</i>

<i>SPRING #</i>	<i>WATER RIGHT #</i>	<i>Monitoring Clarification</i>
<i>UJV-204</i>	<i>93-810</i>	<i>Outside of projected mining, PacifiCorp selected UJV-206, a spring situated within projected subsidence area in the vicinity of UJV-204.</i>
<i>UJV-206</i>	<i>93-3400</i>	<i>Included within monitoring program.</i>
<i>UJV-207</i>	<i>93-821</i>	<i>Located along southern permit boundary, approximately 1/2 mile from projected mining. PacifiCorp selected EM-216, a spring situated in the vicinity of UJV-207.</i>
<i>UJV-209A</i>	<i>93-102</i>	<i>Located along southern permit boundary, approximately 3/4 mile from projected mining. PacifiCorp selected EM-216, a spring situated in the vicinity of UJV-207.</i>
<i>UJV-213</i>	<i>a21560</i>	<i>Site # UJV-213 is a seep with limited historical data. PacifiCorp selected UJV-101, a spring situated in the vicinity of UJV-213.</i>
<i>UJV-214</i>	<i>93-811</i>	<i>Site # UJV-214 is a seep with limited historical data. PacifiCorp selected UJV-206, a spring situated in the vicinity of UJV-214.</i>

In addition, PacifiCorp revised R645-301-731-200 to include the rationale utilized to select the groundwater resources to be monitored.

R654-301-724.100, -121, Data from 1980, 1981, 1982, 1991, 1992, 1993, 1994, 1995, and 1996 in the R645-301-700 Hydrology - Tables do not identify the date, the month, the quarter, or the season they were collected, who collected the data, or for what reason they were collected; they are not effective in determining seasonal variations of quality and quantity. Some of these data are briefly discussed on pages 22 and 23, but the connection between the R645-301-700 Hydrology - Tables and pre-lease hydrology evaluation for the USFS by Genwal is not clear. Clarify the source of these data and Energy West's evaluation of the quality of these data.

Hydrologic Section, R645-301-721 A. Existing Groundwater Resources, (4) Seeps Springs, has been revised to clarify historical groundwater resource information.

R645-301-724.200, -121.100, Baseline data or data summaries for Mill Fork and Indian Creek in the Mill Fork Lease PAP do not provide adequate information on seasonal variation of quality and quantity and are incomplete and inadequate, so current information as required by the Coal Mining Rules is not available in the PAP. The Coal Mining Rules are clear that the Mill Fork Lease PAP should be complete and contain the required information, and not require a search for the information at other sources, such as annual or quarterly reports. All surface-water baseline data need to be included as part of the Mill Fork Lease PAP before the permit can be approved.

Groundwater Resources:

Hydrologic Section, R645-301-721 A. Existing Groundwater Resources, (4) Seeps Springs, has been revised. As stated in (4) Seeps and Springs; Groundwater Resources - Data collected in 2000-2001 confirms the trends of historical data collected for southern East Mountain, (i.e., despite the seasonal variability in discharge rates), the solute concentrations of active region groundwaters do not exhibit significant seasonal variability (refer to Appendix C: Water Quality tab and Table MFHT-5).

Surface Water Resources:

R645-301-721 A. Existing Surface Water Resources, (1) Regional and Permit Areas Surface Water Hydrology, b. Water Quality and Quantity, Mill Fork and Indian Creek has been revised to include requested information.

The Mill Fork application is an extension of the Deer Creek Mine and has been included a separate volume. References cited within the document, including data from Volume 9 Hydrologic Section and the Annual Reports are considered part of the Deer Creek MRP and are readily available to the reviewer. As for remaining references, PacifiCorp has cited the source as customary in professional documents.

R645-301-121.200, Volume 12 of the Mill Fork Lease PAP contains laboratory reports for 42 seeps and springs from the 3rd and 4th quarter 2000, and for 50 seeps and springs from the 2nd and 3rd quarter 2001. **1)** Indian Creek Above, Indian Creek Below, Indian Creek Canal, and EM Pond that are included with these seep and spring analyses are surface-water monitoring sites. **2)** Indian Creek Ditch (ICD) is described on page 66: it isn't clear whether ICD and Indian Creek Canal are the same site. These two items need to be clarified.

Oil of the State

Hydrologic Section, R645-301-700 has been revised to include information collected during the 4th quarter of 2001. Data collected clearly demonstrates the seasonal variation in quality (refer to the revised data in Appendix C: Water Quality tab and R645-301-721 A. Existing Groundwater Resources, (4) Seeps Springs).

1) Indian Creek Above, Indian Creek Below, Indian Creek Canal, and EM Pond that are included with these seep and spring analyses are surface-water monitoring sites.

Volume 12: Water Quality tab has been revised separating the Indian Creek surface sites from the spring monitoring data. EMPOND (historically referenced as Rilda Pond according to the USFS) is a spring not a surface site as referenced. The spring feeds a small depression used for grazing and wildlife. In consultation with the USFS, PacifiCorp has revised the spring monitoring program to include EMPOND into regular monitoring program.

Maps, Plans, and Cross Sections of Resource Information

R645-301-512.121, The Applicant must locate all buildings in and within 1,000 feet of the proposed permit area, with identification of the current use of the building.

A map showing surface facilities of the Genwal Resources Mining complex have been included to satisfy this deficiency (refer to R645-301-500 Figure a).

R645-301-722.100, There are no maps showing location and extent of subsurface water, if encountered, within the proposed permit or adjacent areas, including, but not limited to, areal and vertical distribution of aquifers, and portrayal of seasonal differences of head in different aquifers on cross sections and contour maps.

PacifiCorp has provided extensive detail in R645-301-700 explaining the regional and permit groundwater resources. As stated in R645-301-721 GENERAL REQUIREMENTS, A. EXISTING GROUNDWATER RESOURCES: #10:

The overall pattern of groundwater flow and surface water-groundwater interactions in the Mill Fork Lease and adjacent areas can be described by a fairly simple conceptual model involving both active and inactive groundwater flow regimes (Mayo and Morris, 2000 Appendix B). The model is illustrated in Appendix B Figure 27.

Active zone groundwater flow systems contain abundant ^3H , have excellent hydraulic communication with the surface, are dependent on annual recharge events, and are affected by short term climatic variability. Tritium and carbon-14 "age" dating of spring waters in the study area demonstrate that all springs, except 18-4-1, issue from active zone groundwater systems and are of modern origin (Appendix B Table 5, Figure 26). Groundwater in the active zone generally circulates shallowly and has short flow paths. Because the springs in the Mill Fork Lease and adjacent areas are not part of large, regional groundwater systems, hydrographs of their discharge rates show both seasonal and climatic fluctuations (Appendix B Figure 12). During drought cycles, it is not uncommon for discharge from some springs in the active zone to completely cease.

The $\delta^2\text{H}$ and $\delta^{18}\text{O}$ compositions of Mill Fork Lease springs relative to in-mine groundwaters demonstrate that the Mill Fork Lease springs are not part of the same groundwater systems that discharge in the mines (Appendix B Figure 25).

The active regime includes alluvial groundwater, all of the Flagstaff Limestone, and the near-surface exposures of all other bedrock formations. The "near surface" extends a few hundred feet vertically into the subsurface, about 500 to 1,000 feet into cliff faces and is controlled by fracturing, weathering, and the surface exposures of fluvial channel sands. Further into the cliff faces the discontinuous character of the channel sands prevents active groundwater flow.

Except for mountain fronts and cliff faces, the coal bearing lower Blackhawk Formation and the Star Point Sandstone are generally not exposed at the surface in the Mill Fork Lease and are not part of the active zone. In Cottonwood Canyon, located south of Mill Fork Lease, the Star Point Sandstone is within a few hundred feet of land surface and is part of the active zone as evidenced by the tritium content, 1.10 TU, in Well CCCW-1S (Appendix B Table 5). Elsewhere Star Point Sandstone samples have groundwater ages of 6,000 to 19,000 years. In the Mill Fork Lease the lower Blackhawk Formation and Star Point Sandstone are not exposed near the land surface, except at cliff faces, and are not in the active zone.

Except for mining operations near cliff faces, the in-mine environment is generally not part of the active zone. However, in-mine groundwater containing tritium (i.e., 1 TU or more, Appendix B Table 5) in TW-10 (Roans Canyon Fault) and 5th West Fault (Joes Valley Fault-Genwal Mine) indicate that locally the inactive zone extends into the mine environment where fracture zones, that are associated with major faulting, are currently under tensional stress. The extension of the active zone into the mine environment along fractures is localized as evidenced by the absences of tritium and old ^{14}C ages in in-mine groundwater collected elsewhere along the fracture zone (Appendix B Table 5).

Inactive zone groundwater systems contain old groundwater (i.e. 2,000 to 19,000 radiocarbon years, Appendix B Table 5), have very limited hydraulic communication with the surface and with other active groundwater flow systems, and are not influenced by either annual recharge events or short term climatic variability as evidenced by the decline in roof drip rates (Appendix B Figure 15). Groundwater in these systems tends to occur in sandstone channels in the North Horn, Price River, and Blackhawk Formations which are not in direct hydraulic communication with the surface (i.e. greater than about 500 to 1,000 feet from cliff faces). These sandstone channels are vertically and horizontally isolated from each other and when encountered in mine workings are usually drained quickly. The blanket sands of the Star Point Sandstone are also largely in the inactive zone.

In addition to the extensive information pertaining, PacifiCorp revised R645-301-721 GENERAL REQUIREMENTS, A. EXISTING GROUNDWATER RESOURCES, #3 Regional Groundwater Characteristics: f. Star Point Sandstone section to state:

The Star Point Sandstone, which immediately underlies the Hiawatha Coal Seam, exhibits some characteristics of an aquifer but experiences little recharge. Studies conducted by the USGS indicate that the Star Point Sandstone is of low permeability, thus limiting its usefulness as a water-producing aquifer. Most of the water discharge from the Star Point Sandstone is where it has been intersected by the major canyons in the plateau or where faulting has caused secondary permeability. This, plus the fact that the Star Point Sandstone is only slightly to moderately permeable, allows only limited flow of groundwater through the formation. Drill holes completed in the Deer Creek, Wilberg/Cottonwood and Genwal mines have defined the piezometric gradient in the lower Blackhawk/Star Point Sandstone system in isolated areas and confirmed the groundwater flow conforms with the topographic relief and structural features, i.e., regional dip, Straight Canyon Syncline, and regional faulting (refer to Volume 9, figures HF-5A and HF-5B for gradient information related to Deer Creek and Wilberg/Cottonwood mines and figure MFHF-6 for potentiometric gradient data for the Spring Canyon Member of the Star Point Sandstone for the Mill Fork Area).

The overall pattern of groundwater flow and surface water-groundwater interactions in the Mill Fork Lease and adjacent areas can be described by a fairly simple conceptual model involving both active and inactive groundwater flow regimes (Mayo and Morris, 2000 Appendix B). The model is illustrated in Appendix B Figure 27. Inactive zone groundwater systems contain old groundwater (i.e. 2,000 to 19,000 radiocarbon years, Appendix B Table 5), have very limited hydraulic communication with the surface and with other active groundwater flow systems, and are not influenced by either annual recharge events or short term climatic variability as evidenced by the decline in roof drip rates (Appendix B Figure 15) and lack of fluctuations of in-mine monitoring

wells.

Solute chemistry in the Spring Canyon Member is not uniform beneath existing mines suggesting that there is a partitioning of groundwater systems in the member (refer to Appendix B - Mill Fork Hydrologic Investigation). This condition is likely the result of interbedded lower-permeability layers in the Star Point Sandstone which partition individual sandstone bodies. These findings are substantiated by monitoring well data from 6 wells in the Trail and East Mountain areas (Appendix B Section 7.3) and are significant in that they strongly suggest that the Spring Canyon Member does not act as a single regionally continuous aquifer, but rather it supports a series of smaller, discrete groundwater systems.

OPERATION PLAN

Existing Structures

R645-301-526.110, The Applicant needs to list all existing structures in the Mill Fork Lease area in Section R645-301-526 of the PAP. See the analysis section for details.

R645-301-500 Engineering Section has been revised to included the requested information.

Subsidence Control Plan

R645-301-525.120, If the Applicant decides to undermine or subside any portion of the 345 KV transmission line then they must include a narrative indicating whether subsidence, if occurred, could cause material damage to the structure.

R645-301-525.312, If the Applicant decides to undermine or subside any portion of the 345 KV transmission line, the Applicant will need the written consent of the owner (Utah Power).

R645-301-525.520, The Applicant will need to purchase before mining a non-cancelable premium-prepaid insurance policy, but only if the Applicant plans to undermine or potentially subside any portion of the 345KV transmission line.

R645-301-500 Engineering Section has been revised to include details related ownership of the 345 KV power line and the extent of structures to be undermined.

Stated in the Engineering Section, the 345 KV power line is owned and operated by Utah Power,

a subsidiary of PacifiCorp, the same parent company of Energy West.

R645-301-525.700, At least six months prior to mining, the underground mining operator will mail a notification to the water conservancy district and Utah Power (only if 345 KV transmission line is to be subsided). The notification will include, at a minimum, identification of specific areas in which mining will take place, dates that specific areas will be undermined, and the location or locations where the operator's subsidence control plan may be examined.

R645-301-500 Engineering Section has been revised to include information cited above, except for notifying Utah Power concerning the 345 KV transmission line. As explained above, Utah Power is a subsidiary of PacifiCorp, the same parent company of Energy West.

R645-301-521.142, R645-301-525.110 and R645-301.525.240, The Applicant must give the Division a map the show the areas that are scheduled to subside (area within the angle-of-draw) and those features that will be protected from subsidence.

Engineering Section, R645-301-525: Subsidence Control Plan has been revised to include information related to the projected affected area.

R645-301-121.200, The Applicant must clarify the existence of barrier pillar along the northern border of the Hiawatha seam. On page 5-29 of the PAP the Applicant states, "That no subsidence protection barrier will be left at the north boundary in the Hiawatha, that they will mine to the north boundary." But the map shows a ~400 foot barrier in the Hiawatha. The Applicant needs to clarify what type of barrier pillar will be left in the north boundary of the Hiawatha seam.

R645-301-500 Engineering Section: Lease Boundary Subsidence Barrier section has been revised.

Fish and Wildlife Information

R645-301-130, Data must be presented to support the statement in the application that experience from the existing PacifiCorp permit areas has shown that the effects of subsidence on grazing and grazing lands, timber resources or access to timber resources, wildlife resources are minimal. No data or qualified person has been attributed to these statements. Data must be provided or the name and qualifications of the person making the statement must be provided.

R645-301-333, A statement must be provided concerning the operational effects of underground mining on the threatened, endangered, and sensitive plant and animal species found within the permit area.

R645-301-321 and R645-301-322 in the Biology Section have been revised that discusses the potential operational effects of mining on TES plant and animal species.

R645-301-333.300, The MRP must describe the protection protective measures and continued resource information gathering for golden eagles.

Section R645-301-322, Fish and Wildlife Resource Information, Terrestrial Species, has been revised to comply with the above deficiency.

Vegetation

R645-301-332, A monitoring system must be described in the MRP that will record any vegetation change over time from subsidence.

Energy West has revised R645-301-300 and R645-301-500: Subsidence Monitoring to include a commitment to conduct infer-red photography every 5 years until permit area reduction is approved by the Division. The infer-red photo documentation will be used as a monitoring tool to record any changes in vegetation.

Maps, Plans, and Cross Sections of Mining Operations

R645-301-521.141, The Applicant must provide a map indicating the boundaries of all areas proposed to be affected by mining.

Engineering Section, R645-301-525: Subsidence Control Plan has been revised to include information related to the projected affected area.

FOREST SERVICE COMMENTS:

PacifiCorp received additional concerns related to the Mill Fork Lease from the Forest Service on March 7, 2002. The following responses to the concerns are formatted as found in the letter dated February 25, 2002. Only responses previously not discussed in the Division's deficiencies will be addressed. In each response, the Forest Service comment is followed by the permittee's italicized response.

Biology Section

Vegetation Map, MFS1821B, does not adequately represent the plant communities.....

Vegetation Map has been revised based upon the data received from the Forest Service. Energy West appreciates the involvement of the Forest Service (Mr. Bob Thompson and Mr. Mike Hubbard) for providing the necessary data.

Land Use and Air Quality Section

The MRP must address Forest Plan Management Units.....

R645-301-400 Land Use and Air Quality section has been revised to include a new map MFS1856B which identifies the Forest Plan Management Units for the Mill Fork Lease. In addition, the text section has been revised to include a description and percentages of each unit.

Land Use and Air Quality Section

Cultural Resource/Paleontological Surveys.....

R645-301-400 Land Use and Air Quality section has been revised to include a reference indicating the source of paleontological data.

Engineering Section

Subsidence Control Plan, gas well angle of draw buffer zone.....

Energy West revised the gas well buffer zone located in the southern portion of the Mill Fork Lease. The buffer zone calculated based on a 15° angle of draw comparing the surface elevation and the elevation of the lowest coal seam to be mined (Hiawatha Seam). The buffer zone was then adjusted on all maps within the MRP. Mine plans of the Hiawatha Seam were adjusted excluding a portion of the southern longwall panel to prevent possible damage from subsidence.

Engineering Section

Subsidence Control Plan, 22° angle of draw buffer zone along the Joes Valley fault.....

Energy West reviewed the Joes Valley buffer zone located along the west boundary of the Mill Fork Lease. The buffer zone was re-calculated including additional points comparing the surface elevation and the elevation of the lowest coal seam to be mined (Hiawatha Seam). The buffer zone was then adjusted slightly on all maps within the MRP. Even though the buffer zone was revised, changes to the mine plans were not necessary.

Engineering Section

Subsidence Control Plan, Emery Water Conservancy District flow monitor.....

Energy West contacted the Emery Water Conservancy District and discussed the remote monitoring system located in Section 23, T16S, R6E.. Mr. Jay Mark Humphrey indicated that the District experienced maintenance problems with the devise and reliable data was difficult to achieve. Energy West informed the District that the groundwater site RR-15 has been included in the Mill Fork Hydrologic Monitoring Program. Mr. Humphrey recommended removing the remote equipment and terminating the Special Use Permit. Energy West committed to assisting the District with this during the Helicopter Assisted Coal Exploration Program in removing the equipment with helicopter support. All references to the remote monitoring equipment has been removed from the text and corresponding maps.

Engineering Section

Subsidence Monitoring Plan, photogrammetry methods.....

Energy West has revised R645-301-500 Engineering Section to explain the subsidence monitoring program and has included a new map which provides location of the subsidence control points for the Mill Fork Lease.

Engineering Section

Figure R645-301-500a

Energy West has revised corrected figure R645-301-500b (previously Figure 500a).

Hydrologic Section

Hydrologic Map MFS1851D: Legend.....

Energy West has revised Hydrologic Map MFS1851D.

Hydrologic Section

Page 95-96, percentages of creek flows.....

Energy West has revised R645-301-700 Hydrology text section to correct percentages of creek flows.

Hydrologic Section

Hydrologic Monitoring in Mill Fork, additional surface monitoring point upstream of the Mill Fork Graben.....

Energy West commits to adding an additional surface water monitoring point upstream of the Mill Fork Graben during the 2002 field season. After locating the point in the field, Energy West will revise R645-301-700 Appendix A: Hydrologic Monitoring Program to include the new surface monitoring site.

Hydrologic Section

Provide site specific rationale for spring monitoring selection.....

Energy West has revised R645-301-700 Hydrology text section to include spring monitoring selection rationale.

Hydrologic Section

Water Rights and Replacement - Little Bear Spring.....

Energy West has revised R645-301-700 Hydrology text section to the following:

b. Little Bear Spring

A second spring system which has been developed for culinary purposes referred to as Little Bear Spring occurs east of the Mill Fork Lease. Little Bear Spring is a large spring (average flow of approximately 300 gpm) which issues from the lowest member of the Star Point Sandstone (Panther Member) located approximately one and one half (1 ½) miles to the east of the Mill Fork Lease boundary in Section 9, Township 16 South, Range 7 East (refer to Groundwater Rights and Users

for complete hydrologic characteristics related to Little Bear Spring). PacifiCorp has agreed in principle with Castle Valley Special Service District on a mitigation plan concerning Little Bear Spring. The finalized agreement will be included as an appendix.

Hydrologic Section

List of springs chosen by the Forest Service.....

Energy West met with the Forest Service on March 7, 2002 to discuss the Mill Fork Spring monitoring program. Based on the discussion and review of the spring map, even though the names of the individual springs differed from Energy West and the Forest Service, a majority of springs listed by the Forest Service (or adjacent groundwater source) had been included in the spring monitoring program. Energy West did commit to adding EMPOND (known as Rilda Pond to the USFS) to the spring monitoring program. In addition, Energy West committed to field locating with the assistance of Mr. John Healy, "Grant Spring - NE1/4SW1/4 Section 23, T16S, R6E" during the 2002 field season. Based upon the field review, Energy West will consult with the Forest Service whether or not to include this site in the spring monitoring program.